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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/729,743	12/06/2000	Steven B. Bridgers	P-5200-01-00	7935

7590 02/06/2004

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WASHINGTON, DC 20007-5109

EXAMINER

FERGUSON, MICHAEL P

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 02/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/729,743

Applicant(s)

BRIDGERS, STEVEN B.

Examiner

Michael P. Ferguson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-117 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-24, 27, 28, 32, 33, 36, 37, 41-43, 45-47, 50-57, 60-63, 67, 68, 72, 73, 76-79 and 89-117 is/are allowed.
- 6) ☒ Claim(s) 19-21, 25, 26, 29-31, 34, 35, 38-40, 44, 48, 49, 58, 59, 64-66, 69-71, 74, 75 and 80-88 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Objections

2. Claims 24, 33, 36, 41, 45, 50-54, 96 and 102 are objected to because of the following informalities:

Claim 24 (line 2) recites "module a said second". It should recite --module and a second--.

Claim 33 (line 1) recites "module as recited in claim 28, comprising". It should recite --module comprising--.

Claim 36 (line 1) recites "module as recited in claim 35, comprising". It should recite --module comprising--.

Claim 41 (line 1) recites "module as recited in claim 38, comprising". It should recite --module comprising--.

Claim 45 (line 1) recites "module as recited in claim 44, comprising". It should recite --module comprising--.

Claim 50 (line 1) recites "module as recited in claim 49, comprising". It should recite --module comprising--.

Claim 51 (line 1) recites "module as recited in claim 48, comprising". It should recite --module comprising--.

Claim 52 (line 1) recites "module as recited in claim 38, comprising". It should recite --module comprising--.

Claim 53 (line 1) recites "module as recited in claim 39 comprising". It should recite --module comprising--.

Claim 54 (line 1) recites "module as recited in claim 44 comprising". It should recite --module comprising--.

Claim 96 (line 1) recites "sand another". It should recite --said another--.

Claim 102 (line 2) recites "connect module". It should recite --connector module--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

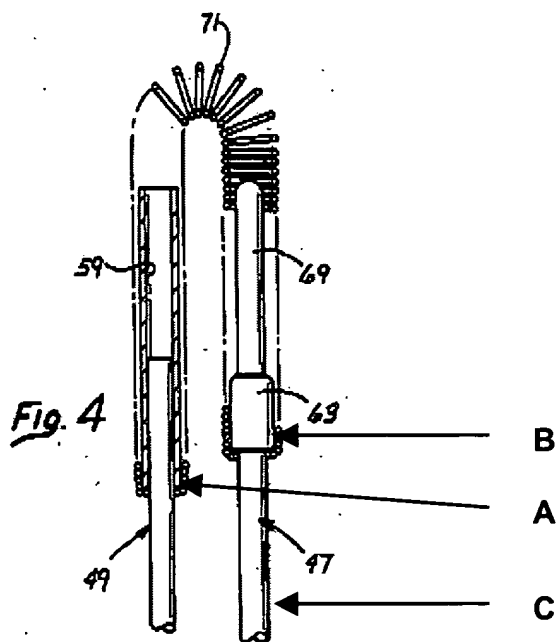
3. Claims 19-21, 25, 34, 35, 38-40, 44, 48, 49, 58, 59, 64-66, 70, 71, 74, 75, 80 and 83-88 rejected under 35 U.S.C. 102(b) as being anticipated by Eppenbach (USPN 5,590, 674).

As to claim 19, Eppenbach discloses a connector module having:

a body (main or principle part) **57**, a portion of the body having a solid exterior surface;

a resilient member **71** having a first end **A** (Figure 4 reprinted below with annotations) connected to a location on the solid exterior surface and a second end **B**, the resilient member accommodating rotational motion (bending of spring **71**) and translational (compression of spring **71**) in more than one plane from the location;

a strut **47,63,69**, the strut having a first end **63,69** connected to the second end of the resilient member and a second end **C** for connection to another structural element (an identical connector module having a body **57**; Figures 2-5).



As to claim 20, Eppenbach discloses a connector module wherein another structural element comprises a second connector module (Figures 3 and 4).

As to claim 21, Eppenbach discloses a connector module wherein another structural element has a second strut (attached to a body **57** of the another structural element; Figures 3 and 4).

As to claim 25, Eppenbach discloses a connector module having a strut **47,63,69** having a telescoping member **69** (telescoping member **69** is telescopically received within cavity **59** of body **57**; Figures 3 and 4).

As to claim 34, Eppenbach discloses a connector module having a resilient member **71** providing a degree of motion permitting a strut **47,63,69** to move between a position in a first plane and a position in a second plane (Figures 3 and 4).

As to claim 35, Eppenbach discloses a connector module having a strut **47,63,69** having a telescoping member **69** (telescoping member **69** is telescopically received in cavity **59** of body **57**; Figures 3 and 4).

As to claim 38, Eppenbach discloses a connector module having a resilient member **71** accommodating axial motion (Figures 4).

As to claim 39, Eppenbach discloses a connector module wherein another structural element comprises a second the connector module (Figures 3 and 4).

As to claim 40, Eppenbach discloses a connector module wherein another structural element has a second strut (attached to a body **57** of the another structural element; Figures 3 and 4).

As to claim 44, Eppenbach discloses a connector module having a strut **47,63,69** having a telescoping member **69** (telescoping member **69** is telescopically received in cavity **59** of body **57**; Figures 3 and 4).

As to claim 48, Eppenbach discloses a connector module having a resilient member **71** providing a degree of motion permitting a strut **47,63,69** to move between a position in a first plane and a position in a second plane (Figures 3 and 4).

As to claim 49, Eppenbach discloses a connector module having a strut **47,63,69** having a telescoping member **69** (telescoping member **69** is telescopically received in cavity **59** of body **57**; Figures 3 and 4).

As to claim 58, Eppenbach discloses a structure comprising a plurality of connector modules, each the connector module comprising;

- a body (main or principle part) **57**, a portion of the body having a solid exterior surface;

- a resilient member **71** having a first end **A** connected to a location of the solid exterior surface and a second end **B**, the resilient member accommodating translational (compression of spring **71**) and rotational motion (bending of spring **71**) in more than one plane from the location;

- a strut **47,63,69**, the strut having a first end **63,69** connected to the second end of the resilient member and a second end **C** for connection to another structural element (Figures 2-5).

As to claim 59, Eppenbach discloses a structure having a strut **47,63,69** having a telescoping member **69** (telescoping member **69** is telescopically received in cavity **59** of body **57**; Figures 3 and 4).

As to claim 64, Eppenbach discloses a structure having an adjustable shape defined by connections between a second end **C** of a strut **47,63,69** and another

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structural element and a position of the resilient member **71** of a connector module (Figures 5 and 6).

As to claim 65, Eppenbach discloses a structure which is collapsible (Figure 5).

As to claim 66, Eppenbach discloses a structure having a strut **47,63,69** of a connector module having a telescoping member **69** (telescoping member **69** is telescopically received in cavity **59** of body **57**; Figures 3 and 4).

As to claim 70, Eppenbach discloses a structure having a resilient member **71** accommodating axial motion (Figures 3 and 4).

As to claim 71, Eppenbach discloses a structure having a strut **47,63,69** having a telescoping member **69** (telescoping member **69** is telescopically received in cavity **59** of body **57**; Figures 3 and 4).

As to claim 74, Eppenbach discloses a structure comprising a plurality of connector modules, each the connector module comprising;

a body (main or principle part) **57**;

a resilient member **71** accommodating translational (compression of spring **71**) and rotational motion (bending of spring **71**) in more than one plane, the resilient member having a first end **A** connected to the body and a second end **B**;

a strut **47,63,69**, the strut having a first end **63,69** connected to the second end of the resilient member and a second end **C** for connection to another structural element, the resilient member accommodating axial motion (Figures 2-5).

As to claim 75, Eppenbach discloses a structure comprising a plurality of connector modules, each the connector module comprising;

a body (main or principle part) **57**;

a resilient member **71** accommodating translational (compression of spring **71**) and rotational motion (bending of spring **71**) in more than one plane, the resilient member having a first end **A** connected to the body and a second end **B**;

a strut **47,63,69**, the strut having a first end **63,69** connected to the second end of the resilient member and a second end **C** for connection to another structural element, the strut comprising a telescoping member **69** (telescoping member **69** is telescopically received in cavity **59** of body **57**), the resilient member accommodating axial motion (Figures 2-5).

As to claim 80, Eppenbach discloses a connector module comprising:

a body (main or principle part) **57**, a portion of the body having a solid exterior surface;

a resilient member **71** having a first end **A** connected to a location on the solid exterior surface and a second end **B**, the resilient member accommodating axial, translational (compression of spring **71**) and rotational motion (bending of spring **71**) from the location;

a telescoping strut **47,63,69** (telescoping member **69** is telescopically received in cavity **59** of body **57**) having a first end **63,69** connected to the second end of the resilient member and a second end **C**, the second end being connectable to another structural element (Figures 2-5).

As to claim 83, Eppenbach discloses a structure comprising a plurality of connector modules, each of the connector modules comprising:

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a body (main or principle part) **57**, a portion of the body having a solid exterior surface;

a resilient member **71** having a first end **A** connected to a location on the solid exterior surface and a second end **B**, the resilient member accommodating axial, translational (compression of spring **71**) and rotational motion (bending of spring **71**) from the location; and

a telescoping strut **47,63,69** (telescoping member **69** is telescopically received in cavity **59** of body **57**) having a first end **63,69** connected to the second end of the resilient member and a second end **C**, the second end being connectable to another structural element (Figures 2-5).

As to claim 84, Eppenbach discloses a structure assuming a plurality of shapes determined by relative positions of the resilient member **71** and the telescoping strut **47,63,69** of each of a plurality of connector modules (Figures 3 and 4).

As to claim 85, Eppenbach discloses a structure assuming a first shape in two dimensions and a second shape in three dimensions (Figures 5 and 6).

As to claim 86, Eppenbach discloses a structure assuming a first shape in two dimensions and a second shape in three dimensions (Figures 5 and 6).

As to claim 87, Eppenbach discloses a structure wherein a resilient member **71** of each of a plurality of connector modules is biased to cause the structure to assume a shape absent an external force (spring **71** is biased to an equilibrium state, holding strut member **69** within cavity **59** of body **57**).

As to claim 88, Eppenbach discloses a structure wherein a resilient member **71** of each of a plurality of connector modules is biased to cause the structure to assume a shape absent an external force (spring **71** is biased to an equilibrium state, holding strut member **69** within cavity **59** of body **57**).

Allowable Subject Matter

4. Claims 26, 29-31, 69, 81 and 82 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 22-24, 27, 28, 32, 33, 36, 37, 41-43, 45-47, 50-57, 60-63, 67, 68, 72, 73, 76-79 and 89-117 are allowed.

As to claim 89, Eppenbach discloses a connector module comprising;
a body (main or principle part) **57**;

a resilient member **71** accommodating translational (compression of spring **71**) and rotational motion (bending of spring **71**) in more than one plane, the resilient member having a first end **A** connected to the body and a second end **B**;

a strut **47,63,69**, the strut having a first end **63,69** connected to the second end of the resilient member and a second end **C** for connection to another structural element, the another structural element comprising a second connector module (Figures 2-5).

Eppenbach fails to disclose a connector module having a body having a counter bore, the resilient member being inserted into the counter bore.

As to claim 102, Eppenbach discloses a connector module comprising;

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a body (main or principle part) **57**;

a resilient member **71** accommodating translational (compression of spring **71**) and rotational motion (bending of spring **71**) in more than one plane, the resilient member having a first end **A** connected to the body and a second end **B**;

a strut **47,63,69**, the strut having a first end **63,69** connected to the second end of the resilient member and a second end **C** for connection to another structural element (Figures 2-5).

Eppenbach fails to disclose a connector module having a body having a counter bore, the resilient member being inserted into the counter bore.

As to claim 109, Eppenbach discloses a connector module comprising;

a body (main or principle part) **57**;

a resilient member **71** accommodating translational (compression of spring **71**) and rotational motion (bending of spring **71**) in more than one plane, the resilient member having a first end **A** connected to the body and a second end **B**;

a telescoping strut **47,63,69** having a first end **63,69** connected to the second end of the resilient member and a second end **C** for connection to another structural element (Figures 2-5).

Eppenbach fails to disclose a connector module having a body having a counter bore, the resilient member being inserted into the counter bore.

As to claim 112, Eppenbach discloses a connector module comprising;

a body (main or principle part) **57**;

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a resilient member **71** accommodating axial, translational (compression of spring **71**) and rotational motion (bending of spring **71**) in more than one plane, the resilient member having a first end **A** connected to the body and a second end **B**;

a telescoping strut **47,63,69** having a first end **63,69** connected to the second end of the resilient member and a second end **C** for connection to another structural element (Figures 2-5).

Eppenbach fails to disclose a connector module having a body having a counter bore, the resilient member being inserted into the counter bore.

It would not have been obvious to one having ordinary skill in the art at the time the invention was made to modify a connector module as disclosed by Eppenbach to have the above mentioned elements as the prior art neither teaches nor suggests such modifications.

Response to Arguments

6. Applicant's arguments with respect to claims 19-21, 25, 34, 35, 38-40, 44, 48, 49, 58, 59, 64-66, 70, 71, 74, 75, 80 and 83-88 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (703)308-8591. The examiner can normally be reached on M-F (7:30-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on (703)308-1159. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1114.

MPF


Lynne H. Browne
Supervisory Patent Examiner
Group Art Unit 3679